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EXAMINER

HUYNH, CHUCK

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/614,313	Applicant(s) PEKONEN, HARRI	
	Examiner Chuck Huynh	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/21/2006 has been entered.

Response to Arguments

1. Applicant's arguments filed 3/21/2006 have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 20-23 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, Applicant notes that amendments have been made to claim 1 in order to clarify that the method of claim 1, and dependent claims 2-17 applies to a system involving multiple stations and a wireless terminal – no new matter has been

added. As previously argued, neither Wager nor Campanella discloses broadcasting burst of data packets from multiple base transceiver stations to a terminal.

Examiner would like to note that amendments have been made to claim 1 in order to clarify that the method of claim 1, and dependent claims 2-17 applies to a system involving multiple stations and a wireless terminal; however, Wager still reads on a system involving multiple base stations (Col 2, lines 35-38) and a wireless terminal (mobile station-Col 2, line 35). Therefore, the amendment does not overcome the previous rejection.

Furthermore, Applicant contends that the asserted motivation is improper as Wager specifically teaches away from using forward error correction (FEC). Specifically Wager states that the problems with FEC include the requirement of "the addition of redundant bit information within the transmitted bit stream." (Column 1, lines 39-41). In fact, a primary purpose of the Wager disclosure is to utilize a different type of error correction and not utilize FEC.

Examiner respectfully disagrees, and would like to point out that Wager is not relied on for disclosing the usage of FEC within the claim, but does suggest an improvement to be used with the existing FEC technique (Col 1, lines 48-49). **Wager specifically states that "...a scheme which may be used to improve existing FEC and ARQ technique," which suggest a scheme that would work in conjunction with existing FEC to improve its functionality.** With that being said, Campanella, being analogous in the art, is relied upon to read on the broad nature of FEC usage in

claim 1. Therefore, the combination would be proper to fully read on the claim 1's broad language. Therefore, claims 1-3, 9, 10, 12 and 14 are still not in condition for allowance.

Furthermore, Applicant argues that claim 1 is distinct from Wager's reference because it discloses bursts of data packets are broadcast from the base transceiver stations to a wireless terminal. Therefore, in contrast claim 1 relates to a downlink whereby the system includes one receiver and several transmitters.

Examiner would like to disagree, because the claim language of claim 1 does not claim to broadcast bursts of data packets from base transceiver stations to a wireless terminal, in a downlink system consisting of one receiver and several transmitters. Even if it did, Wager does disclose soft handover involving communication of the wireless terminal (mobile station) with several base station transceivers (Col 2, lines 35-45). Furthermore, it is known in the art of Soft Handoff/Handover that a mobile station will communicate back and forth (downlink/uplink) with multiple bas stations, as suggested in Wager (Col 2, lines 35-45).

3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., to broadcast bursts of data packets from base transceiver stations to a wireless terminal, in a downlink system consisting of one receiver and several transmitters) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Additionally, Applicant argues that claim 1 relates to replacement of complete packets rather than bit-by-bit correction of packets received with errors and does not require two copies of the data to correct error. Until this is stated in the claim, there is no ground for this argument.

4. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that claim 1 relates to replacement of complete packets rather than bit-by-bit correction of packets received with errors and does not require two copies of the data to correct error) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 18, Applicant contends that independent claim 18 is directed to a wireless terminal that receives data from a wireless system . . . " (Emphasis Added).

Examiner would like to point out that Willenegger does disclose a wireless system with wireless terminals (Fig 1, 2). And furthermore Willenegger does disclose the fact of hand-over ([0024], [0025], [0225], [0253]). Willenegger also talks about error correction methods [0159], [0155]+, but does not disclose using FEC. However, Schuster is relied on to disclose usage of FEC codes (Col 3, line 47; Col 4, line 65). Schuster and Willenegger are analogous arts disclosing error correction method to provide less costly scheme of correcting for packet loss (Schuster Col 4, line 56-57);

therefore, due to the broadness of the claim, together Willenegger in view of Schuster does disclose all the claimed limitations. Dependent claims 18 and 19 are still not in condition for allowance.

Regarding claim 20, Applicant added to the claim that the FEC codes are variable FEC codes. Frodigh et al. does disclose variable FEC codes. Therefore, the claim is rejected in combination of Willenegger in view of Strawczynski in further view of Frodigh et al.

Regarding claim 24, Applicant disagrees that Strawczynski discloses feature "d) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering. In fact, the cited material merely discloses construction of new information frames.

Examiner disagrees, Schuster (6243846) does disclose determining packet numbers for packets ordering based on the order the packets were transmitted (Col 1, lines 57-60; Col 2, lines 6-8; Col 3, lines 23, 33-35; Col 14, line 19 – 64; Col 15, lines 48 – Col 16, line 49; Col 17, lines 14 – 40). Due to the broadness of the claimed limitation, not specific on how the determination of the packet numbering works, Strawczynski does disclose forwarding valid frames sequentially. Therefore, claim 24 is not in condition for allowance.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3, 9, 10, 12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wager et al. (hereinafter Wager) in view of Campanella.

Regarding claim 1, Wager does disclose a method for processing data corresponding to a first service and received from a wireless system that includes a first base station and a second base station, the method comprising:

(a) receiving a first burst of data packets (Col 2, lines 35-45; Fig. 1, no. 15a) from the first base station (Fig. 1, no. 20a), wherein the first burst corresponds to the first service (Col 2, lines 35-45);

(b) performing a handover from the first base station to the second base station (Col 2, lines 35-38);

(c) receiving second burst of data packets (Fig. 1, no. 10b) from the second base station (Fig. 1, no. 20b), wherein the second burst corresponds with the first service (Col 2, lines 35-45).

Although, Wager does disclose the usage of the FEC process (Col 1, lines 16-19; Col 3, lines 5-20) but did not fully disclose it in his disclosure of when

(d) if an error is detected within the second burst, correcting the error in accordance with a first forward error correcting (FEC) code, wherein the error results from the handover .

However, Campanella does disclose the usage of the forward error correction process (Col 4, lines 30-34; Col 7, lines 6-10; Col 16, lines 32-38).

It would have been obvious to one ordinarily skilled in the art at the time of invention to use Campanella's disclosure of the FEC process with Wager's disclosure to correct transmission errors.

Regarding claim 2, Wager does disclose the method of claim 1, wherein (d) comprises:

(i) determining whether a first data packet is missing from the second burst of data packets (Col 3, lines 8-20); and

(ii) it is well known in the art to use FEC code for calculating the first data packet from the second burst of data packets.

Regarding claim 3, Wager does disclose the method of claim 1, wherein (d) comprises:

(i) determining whether a received symbol is incorrect, wherein the received symbol is contained in one of the data packets of the second burst (Col 3, lines 37-41); and

(ii) correcting the received symbol, wherein the received symbol is equal to a corresponding transmitted symbol (Col 3, lines 47-50, 54-59).

Regarding claim 9, Campanella discloses the method of claim 1, further comprising:

(e) receiving configuration information about the first FEC code (Col 7, lines 6-13).

Regarding claim 10, Wager does disclose the method of claim 9, wherein the configuration information is able to be received over an overhead channel from one of a plurality of base stations that are associated with the wireless system (Col 1, lines 35-44).

Regarding claim 12, Wager discloses the method of claim 1, wherein (b) comprises:

(i) measuring a first signal characteristic of a first signal that is transmitted by the first base station Col 3, lines (Col 2, lines 35-45, 60-67; Col 3 lines 8-15, 32-36);

(ii) measuring a second characteristic of a second signal that is transmitted by the second base station (Col 2, lines 35-45, 60-67; Col 3 lines 8-15, 32-36); and
(iii) if the first signal characteristic satisfies a first predefined criterion and if the second signal characteristic satisfies a second predefined criterion, switching reception from the first base station to the second base station (Col 3 lines 8-15, 32-36).

Regarding claim 14, Wager does disclose the method of claim 1, wherein the first base station is associated with a first channelization code and the second base station is associated with a second channelization code (Col 2, lines 35-45; Fig. 1).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Bobey.

Regarding claim 4, Wager in view of Campanella discloses all the particulars of the claim including the method of claim 3, wherein (d) further comprises:

(iii) if numbering of received data packets is not consecutive in the second burst, rearranging the received data packets so that the numbering is consecutive (Abstract; Col 2, lines 11-13);

however, does not fully disclose that

(iv) if duplicate data packets are received within the second burst, discarding one of the duplicate data packets which means having corresponding .

However, Bobey does disclose discarding duplicate data packets (Col 5, lines 24-26).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Bobey's disclosure with Wager in view of Campanella to discard duplicate packets because they are not needed and one version of the packet is sufficient.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Chou (6594798 B1).

Regarding claim 5, Wager in view of Campanella discloses all the particulars of the claim except the method of claim 1, wherein (d) is performed at an application layer.

However, Chou does disclose the method of claim 1, wherein
(d) is performed at an application layer (Abstract; Col 3, lines 11-12, 21-23, 67; Col 8, lines 42-44, 61-64; Col 17, lines 47-64).

It would have been obvious to one ordinarily skilled in the art at the time of invention to use Chou's disclosure to perform the correction process at various layers to provide error-free communication.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Khayrallah in further view of Echols.

Regarding claim 6, Wager in view of Campanella discloses all the particulars of the claim except the method of claim 2, wherein (i) comprises:

(1) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering but Wager in view of Campanella in further view of Khayrallah does not fully disclose

(2) if a packet number is missing from the received data packets, inserting a null symbol to signify an erasure within the second burst, wherein the null symbol is associated with a missing data packet.

However, Wager in view of Campanella in further view of Khayrallah does disclose the method of claim 2, wherein (i) comprises:

(1) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering (Col 2, lines 11-13);

It would have been obvious to one ordinarily skilled in the art at the time of invention to have an ordering of the data to provide correct broadcasting communication.

On the other hand Wager in view of Campanella in further view of Khayrallah does not fully disclose

(2) if a packet number is missing from the received data packets, inserting a null symbol to signify an erasure within the second burst, wherein the null symbol is associated with a missing data packet.

However, Echols does disclose (2) if a packet number is missing from the received data packets, inserting a null symbol to signify an erasure within the second burst, wherein the null symbol is associated with a missing data packet (Page 2, [0022]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to denote missing data to be corrected to provide error-free communication data.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Lou.

Regarding claim 7, Wager in view of Campanella discloses all the particulars of the claim except for the method of claim 1, wherein the first FEC code comprises a block forward error correcting (FEC) code.

However Lou doe disclose the method of claim 1, wherein the first FEC code comprises a block forward error correcting (FEC) code (Col 3, lines 61-63).

It would have been obvious to one ordinarily skilled in the art at the time of invention to apply a block of FEC code for correcting errors to provide error-free communication.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Scheller.

Regarding claim 8, Wager in view of Campanella discloses all the particulars of the claim except, the method of claim 1, wherein the first FEC code comprises an expandable forward error correcting code.

However, Scheller does disclose the method of claim 1, wherein the first FEC code comprises an expandable forward error correcting code (Col 5, lines 37-46, 61-67 – Col 6, lines 1-4).

It would have been obvious to one ordinarily skilled in the art at the time of invention to use Scheller's disclosure in combination with Wager in view of Campanella to have the FEC code be expanded to optimize particular data transmission.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Chou (6594798 B1).

Regarding claim 11, Wager in view of Campanella discloses all the particulars of the claim including the method of claim 1, further comprising:

(f) performing a handover from the first base station to the second base station (Col 3, lines 8-17, 32-38);

however, Wager in view of Campanella does not fully disclose

(e) receiving a third burst of data packets from the first base station, wherein the third burst corresponds to a second service;

(g) receiving a fourth burst of data packets from the second base station, wherein the second burst corresponds to the second service; and

(h) if another error is detected within the fourth burst, correcting the other error by utilizing a second FEC code.

However, Chou does disclose

(e) receiving a third burst of data packets from the first base station, wherein the third burst corresponds to a second service (Col 17, lines 48-51);

it would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Chou's disclosure in the process of handover to provide error-free communication transmission;

(g) receiving a fourth burst of data packets from the second base station, wherein the second burst corresponds to the second service (Col 18, lines 48-51));

it would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Chou's disclosure in the process of handover to provide error-free communication transmission;

(h) if another error is detected within the fourth burst, correcting the other error by utilizing a second FEC code (Col 18, line 48);

It would have been obvious to one ordinarily skilled in the art at the time of invention to use FEC to correct errors to provide error-free communication transmission.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Lou.

Regarding claim 13, Wager discloses multiple data streams received from base stations (Col 2, lines 50-53) but does not full disclose the method of claim 1, wherein the first base station is associated with a first center frequency value and the second base station is associated with a second center frequency value.

However, Lou does disclose bit data stream being transmitted on different frequency (Col 8, lines 33-37).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Lou's disclosure to have base stations transmitting at different frequency to provide communication.

10. Claim 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wager in view of Campanella in further view of Famolari.

Regarding claim 15, Wager in view of Campanella discloses all the particulars of the claim except the method of claim 1, wherein the first service is an Internet Protocol (IP) service.

However, Famolari does disclose the method of claim 1, wherein the first service is an Internet Protocol (IP) service.

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Famolari's disclosure to provide IP service for communication.

Regarding claim 16, it is well known in the art that in a cellular network instructions are in a computer-readable medium having computer-executable instructions such as instructions for performing the steps recited in claim 1.

Regarding claim 17, it is well known in the art that in a cellular network instructions are in a computer-readable medium having computer-executable instructions such as instructions for performing the steps recited in claim 2.

11. Claim 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willenegger in view of Schuster (US 6145109).

Regarding claim 18, Willenegger discloses a wireless terminal that receives data from a wireless system, the wireless system comprising a first base station and a second base station (Page 2, [0023], [0024], [0025]), comprising:

- a storage buffer (Fig. 2, no. 262; Page 10, [0181]);
- a timing module (Page 3, [0035]);
- a radio module that communicates with the wireless system over a radio channel (Fig. 2, no. 250);

a processor that receives an indication from the timing module that one of a plurality of bursts of data packets is being transmitted and that stores said one of plurality of bursts into the storage buffer, the processor configured to perform (Fig. 2, no. 256; Page 2, [0029]):

(a) receiving a first burst of data packets from the first base station, wherein the first burst corresponds to an associated service (Page 2, [0026]);

(b) performing a handover from the first base station to the second base station (Page 2, [0025]);

(c) receiving a second burst of data packets from the second base station, wherein the second burst corresponds to the associated service (Page 15, [0241], Page 16 [0253]);

Willenegger discloses all the particulars including error correction coding and linear block decoding and Reed Solomon code and other error correction method of the claim except

(d) if an error is detected within the second burst, correcting the error in accordance with a forward error correcting (FEC) code, wherein the error results from the handover.

However, Schuster does disclose using FEC coding (Abstract; Col 3, line 46).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate FEC coding with Willenegger's disclosure to provide error correction coding for lost/missing/erased data during transmission.

Regarding claim 19, Schuster discloses the wireless terminal of claim 18, wherein the processor is configured to perform:

(i) determining whether a first data packet is missing from the second burst of data packets (Abstract; Col 7, lines 13, 44, 58); and

(ii) calculating the first data packet from the second burst of data packets in accordance with the FEC code (Col 8, lines 11-12).

12. Claim 20 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willenegger in view of Strawczynski in further view of Frodigh (US 6122293).

Regarding claim 20, Willenegger discloses a service source that sends information to a wireless terminal through a wireless system, the wireless system comprising a first base station and a second base station (Col 2, [0023], [0024], [0025]), comprising:

a storage buffer (Fig. 2, no. 232; Page 9, [0162]);

a network interface (Page 18, [0281]); and

a processor (Fig. 2, no. 214), the processor configured to perform:

(a) obtaining the information from an information source, the information being associated with a service (Page 18, [0274 – 0280]);

(b) forming a plurality of data packets from the information and storing the plurality of data packets into the storage buffer (Page 9, [0162]; Page 18, [0274]);

- (e) retrieving the plurality of data packets from the storage buffer (Page 9, [0162] and sending the plurality of data packets to the wireless terminal through the network interface (Page 2, [0027])).

Willenegger discloses all the particulars of the claim and even error correcting coding within a handover (Page 8, Section [0155]; Page 14, Section [0225]) but does not fully disclose

- (c) determining a forward error correcting (FEC) code that provides a desired degree of robustness corresponding to the service and a possible loss of data packets when the wireless terminal handovers from the first base station to the second base station, wherein the first base station and the second base station transmit bursts of data packets;
- (d) encoding the plurality of data packets in accordance with the forward error correcting (FEC) code; and

However, Strawczynski does disclose handover procedures (Abstract)

- (c) determining a forward error correcting (FEC) code (Col 4, lines 23-42) that provides a desired degree of robustness corresponding to the service and a possible loss of data packets when the wireless terminal handovers from the first base station to the second base station, wherein the first base station and the second base station transmit bursts of data packets (Col 6, lines 12-15; Col 9, lines

13-30);

it would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate FEC coding within handover procedures to provide error-free communication;

(d) encoding the plurality of data packets in accordance with the forward error correcting (FEC) code (Col 4, lines 23-31);

it would have been obvious to one ordinarily skilled in the art at the time of invention to apply the FEC code to all packets to check for errors in all packets within the communication process.

Willenegger in view of Strawczynski discloses all the particulars of the claim except that the FEC codes are variable FEC codes.

However, Frodigh does disclose the usage of a variable/dynamic use of FEC coding scheme (Col 2, lines 25-45).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Frodigh's disclosure to provide a more desired degree of robustness to accommodate the increase number of users by decreasing interference.

Regarding claim 21, Strawczynski discloses the service source of claim.20, wherein (c) comprises:

(i) receiving at least one parameter about the FEC code (Page 4, lines 28-31, 36-

38; Page 6, lines 13-15).

Regarding claim 22, Strawczynski discloses the service source of claim 20, wherein the FEC code is determined in accordance with a potential loss of data packets when a wireless terminal performs a handover (Col 4, lines 14-48; Col 7, lines 38-44).

Regarding claim 23, Strawczynski discloses the service source of claim 20, wherein the FEC code is selected in accordance with the service (correcting speech or data) (Col 4, lines 36-42).

13. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strawczynski in view of Schuster (US 6243846).

Regarding claim 24, Strawczynski discloses a method for processing data corresponding to a first service and received from a wireless system that includes a first base station and a second base station (Abstract; Col 1, lines 37-51), the method comprising:

(a) receiving a first burst of data packets from the first base station, wherein the first burst corresponds to the associated service (Col 5, lines 37-45);

(b) performing a handover from the first base station to the second base station; receiving a second burst of data packets from the second base station (Col 5, lines 37-45), wherein the second burst corresponds to the associated service;

(d) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering (Col 1, lines 57-60; Col 2, lines 6-8; Col 3, lines 23, 33-35; Col 14, line 19 – 64; Col 15, lines 48 – Col 16, line 49; Col 17, lines 14 – 40; Col 6, lines 47-65);

(g) calculating the first data packet from the second burst of data packets in accordance with a forward error correcting (FEC) code (Col 9, lines 19-22).

Strawczynski discloses all the particulars of the claim including denoting missing data (Col 6, lines 11-21), but does not fully disclose

(e) if a packet number is missing from the received data packets, inserting a null symbol to signify an erasure within the second burst, wherein the null symbol is associated with a missing data packet;

however, Schuster does disclose if a packet number is missing from the received data packets, inserting a null symbol to signify an erasure within the second burst, wherein the null symbol is associated with a missing data packet (Col 9, lines 61-67 – Col 10, lines 1-9);

it would have been obvious to one ordinarily skilled in the art at the time of invention to substitute an X symbol with a null symbol with both still denoting an incorrect data needing to be corrected to provide error-free communication.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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